# CoolMaster Programmers Reference Manual (PRM)

CoolMaster
Interface Adapter
for VRV, VRF
Air Conditioning Systems

**Cool Master 1000D**
**Cool Master 2000S**
**Cool Master 3000T**
**Cool Master 4000M**
**Cool Master 7000F**
**Cool Master 8000I(MH)**
**Cool Master 9000H**

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# 1 Revisions History

Document revision 3.8 Friday, April 15, 2011

- 3.8
  CoolMaster 1000D Fahrenheit support
  20 groups limit
  CoolMaster 8000I(MH)

- 3.7
  PAC-YG66, PAC-YG63 support for CoolMaster 4000M

- 3.6
  Centralized Address for 200S,3000T

- 3.5
  CoolMaster 7000F

- 3.4
  fixed compatibility notes
  auto command, AutC, AutH
  fspeed: t - top, m for 1000D
  VAM and Auto modes in stat

- 3.3
  added **vam** command


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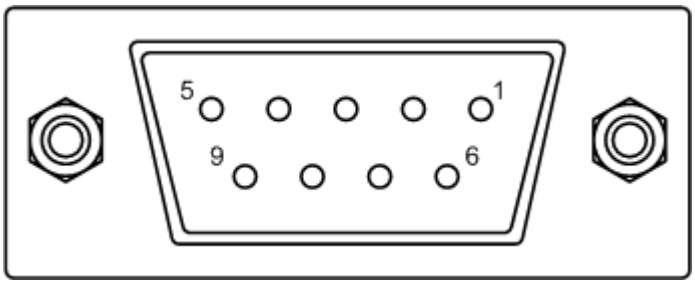
# 2 RS232 Interface

## 2.1 Mechanical and Electrical Specification

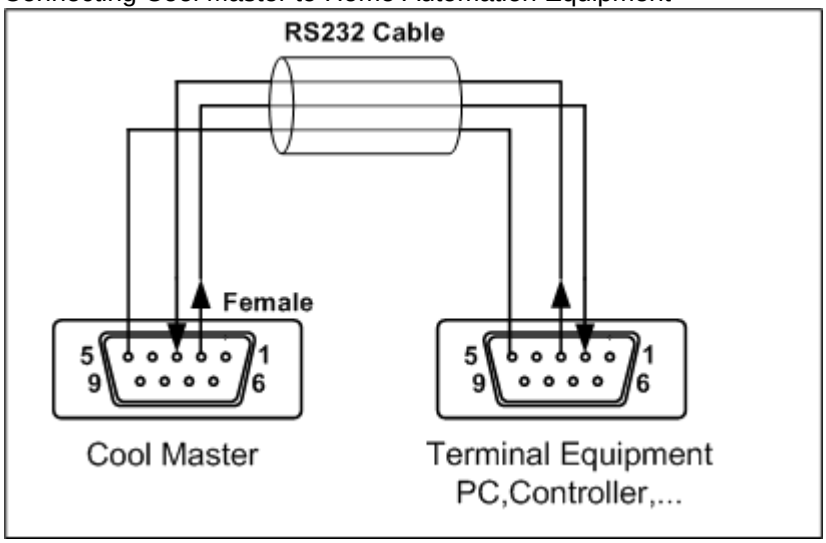
RS232 Interface connector used in Cool Master is D-Type 9-pin DB9 female connector.

Cool Master DB9 Connector front view




| DB9 Pin | Signal Lvel | Description |
|---|---|---|
| 2 | ±12V | TxD (Data from Cool Master) |
| 3 | ±12V | RxD (Data to Cool Master) |
| 5 | GND | Ground |

Connecting Cool Master to Home Automation Equipment




In the picture above it is assumed that Terminal Equipment DB9 connector has RxD line on pin 2 and TxD line on pin 3. (This is a standard for PC). If a Terminal Equipment (Home Automation Controller) has a reversed pin out ( RxD on pin 3 and TxD on pin 2), the crossed RS232 cable must be used to connect TxD to RxD and RxD to TxD.

According to RS232 specification cable length should not exceed 25m. RS232 Cable supplied with Cool Master is 1.5m length suitable for direct connection to PC RS232 serial port.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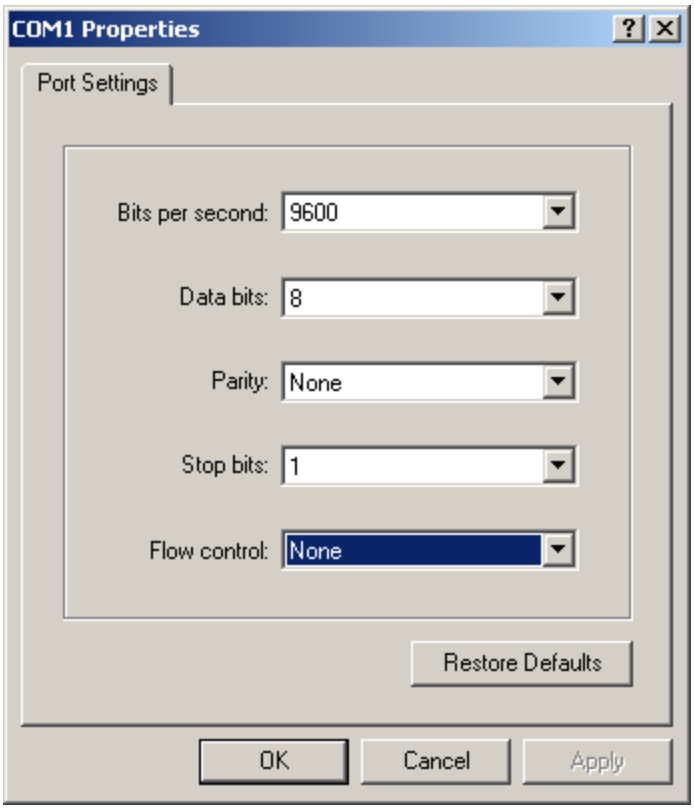
## 2.2 Port Settings

For proper communication with Cool Master RS232 Port should be configured with following parameters

| | |
|---|---|
| Baud Rate | 9600 |
| Data Bits | 8 |
| Parity Control | None |
| Stop Bits | 1 |
| Flow Control | None |

Below is an example of COM port setup in HyperTerminal application





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# 3 General Protocol Definitions

## 3.1 Message format

Communication between PC or Home Automation Controller and CoolMaster via RS232 interface is based on text messages. Communication example is shown below

| | | |
|---|---|---|
| **>stat 101** | command | PC to CoolMaster |
| **101 ON 27C 00,00C Auto Dry OK** | response | CoolMaster to PC |
| **OK** | exit code | |
| **>** | prompt | |

Command message sent to CoolMaster must be terminated by CR (carriage return 0x0D) LF (line feed 0x0A) sequence or a single CR character. Messages from CoolMaster (except prompt character) are terminated by CR LF. Commands are case sensitive and should not contain leading or trailing spaces. The only separator between command name and command parameter(s) is space character.

In case of wrong command CoolMaster response can be one of the following strings:

| | |
|---|---|
| **Unknown command** | Unrecognized command name |
| **Bad parameters** | Command has missing or wrong parameters |

If command was executed CoolMaster will return optional response and exit code. Detailed information is provided in topics describing specific commands.

## 3.2 Indoor Unit Addressing

To address specific indoor unit the UID parameter is used in CoolMaster commands. UID format is three characters. First character is hexadecimal digit in range 0-9 or A-F to represent system numbers 0-9, 10-15 correspondingly or Z to specify centralized address mode.

UID Format:

| 1 | 2 3 |
|---|---|
| System Number 0-9, A-F | Unit Number in System 00-99 |

- For CoolMaster 4000M System Number must be 0, Unit Number must be 01-50
- For CoolMaster 1000D System Number must be in range 1-4
- For CoolMaster 2000S, 3000T, 7000F,8000I(MH), 9000H System Number should not be 0

UID reflects the indoor unit address. For proper operation of CoolMaster all indoor units have to be given addresses (depending on specific AC system type this can be done automatically by system or has to be done manually by integrator). You should refer to specific AC system manuals to find out how to set and quire indoor unit addresses.

Below are examples of accepted UID's.

| UID | Indoor Address |
|---|---|
| 100 | 1-00 |
| 101 | 1-01 |
| 201 | 2-01 |


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310 3-10
F99 15-99

UID format for Centralized Address mode:

| 1 | 2 3 |
|---|---|
| Centralized Address Sign Z | Centralized Address 00-99 |

Example:

| UID | Centralized Address |
|---|---|
| Z01 | 01 |
| Z22 | 22 |

Centralized Address mode is currently supported for CoolMaster 2000S and 3000T.

Note: For backward compatibility Unit number in System can be represented by hexadecimal numbers couple in range 00-0F equal to decimal 00-15. For example 10A represents Centralized Address 1-15. We recommend not to use this option in future designs.


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# 4 Commands Reference

## 4.1 Cool Master Commands

alloff
allon
boot
cool
dry
heat
auto
fan
filt
fspeed
off
on
set
simul
stat
stat2
stat3
swing
temp
group
vam

### 4.1.1 alloff

**SYNOPSIS**

**alloff**

**DESCRIPTION**

Turn off all indoor units

**EXAMPLE**

```
>alloff
OK
```

**EXIT CODE**

OK Request Successfully Executed

### 4.1.2 allon

**SYNOPSIS**

**allon**

**DESCRIPTION**


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Turn on all indoor units.

**EXAMPLE**

```
>allon
OK
```

**EXIT CODE**

OK Request Successfully Executed

### 4.1.3 boot

**SYNOPSIS**

**boot**

**DESCRIPTION**

Switch CoolMaster to bootloader mode. Bootloader mode is used for Firmware Update. For details please see the Firmware Update section.

**EXAMPLE**

```
>boot
reboot...
```

### 4.1.4 cool

**SYNOPSIS**

**cool <UID>**

**DESCRIPTION**

Set indoor unit UID mode to COOL.

**EXAMPLE**

```
>cool 102
OK
```

**EXIT CODE**

| | |
|---|---|
| OK | Request Successfully Executed |
| ERROR:1 | Unit with specified UID not found |

### 4.1.5 dry

**SYNOPSIS**

**dry <UID>**

**DESCRIPTION**


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Set indoor unit UID mode to DRY.

**EXAMPLE**

```
>dry 102
OK
```

**EXIT CODE**

| | |
|---|---|
| OK | Request Successfully Executed |
| ERROR:1 | Unit with specified UID not found |

### 4.1.6 heat

**SYNOPSIS**

**heat <UID>**

**DESCRIPTION**

Set indoor unit UID mode to HEAT.

**EXAMPLE**

```
>heat 102
OK
```

**EXIT CODE**

| | |
|---|---|
| OK | Request Successfully Executed |
| ERROR:1 | Unit with specified UID not found |

### 4.1.7 auto

**SYNOPSIS**

**auto <UID>**

**DESCRIPTION**

Set indoor unit UID mode to AUTO. Status report for the Indoor Unit in Auto mode can be

- Auto - Auto Mode
- AutC - Auto Mode Cooling
- AutH - Auto Mode Heating

**EXAMPLE**

```
>auto 102
OK
```

**EXIT CODE**

| | |
|---|---|
| OK | Request Successfully Executed |
| ERROR:1 | Unit with specified UID not found |

**COMPATIBILITY**


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| | |
|---|---|
| CoolMaster 1000D | v 2.5.1 |
| CoolMaster 2000S | N.A. |
| CoolMaster 3000T | N.A. |
| CoolMaster 4000M | N.A. |
| CoolMaster 7000F | N.A. |
| CoolMaster 8000I(MH) | N.A. |
| CoolMaster 9000H | N.A. |

### 4.1.8 fan

**SYNOPSIS**

**fan <UID>**

**DESCRIPTION**

Set indoor unit UID mode to FAN.

**EXAMPLE**

```
>fan 102
OK
```

**EXIT CODE**

| | |
|---|---|
| OK | Request Successfully Executed |
| ERROR:1 | Unit with specified UID not found |

### 4.1.9 filt

**SYNOPSIS**

**filt <UID>**

**DESCRIPTION**

Reset filter sign on indoor unit UID.

**EXAMPLE**

```
>filt 102
OK
```

**EXIT CODE**

| | |
|---|---|
| OK | Request Successfully Executed |
| ERROR:1 | Unit with specified UID not found |

**COMPATIBILITY**

| | |
|---|---|
| CoolMaster 1000D | v 0.3.1 |
| CoolMaster 2000S | v 2.0.9 |
| CoolMaster 3000T | any |
| CoolMaster 4000M | any |
| CoolMaster 7000F | N.A. |
| CoolMaster 8000I(MH) | any |


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CoolMaster 9000H N.A.

### 4.1.10 fspeed

**SYNOPSIS**

**fspeed <UID> <l|m|h|a|t>**

**DESCRIPTION**

Set indoor unit UID fan speed to low, medium, high, auto, top.

**EXAMPLE**

```
>fspeed 101 l          Set unit 1-01 fan speed to low
OK
>fspeed 101 m          Set unit 1-01 fan speed to medium
OK
>fspeed 101 h          Set unit 1-01 fan speed to high
OK
>fspeed 101 a          Set unit 1-01 fan speed to auto
OK
>fspeed 101 t          Set unit 1-01 fan speed to top
OK
```

**EXIT CODE**

| | |
|---|---|
| OK | Request Successfully Executed |
| ERROR:1 | Unit with specified UID not found |

**COMPATIBILITY**

| | | |
|---|---|---|
| CoolMaster 1000D | any | Supported: l h |
| | 2.5.1 | Supported: l m h |
| CoolMaster 2000S | any | Supported: l m h a |
| CoolMaster 3000T | any | Supported: l m h a |
| CoolMaster 4000M | any | Supported: l m h a t |
| CoolMaster 7000F | any | Supported: l m h a |
| CoolMaster 8000I(MH) | any | Supported: l m h t |
| CoolMaster 9000H | any | Supported: l m h |

### 4.1.11 off

**SYNOPSIS**

**off <UID>**

**DESCRIPTION**

Turn off indoor unit UID.

**EXAMPLE**

```
>off 102
OK
```

**EXIT CODE**

| | |
|---|---|
| OK | Request Successfully Executed |
| ERROR:1 | Unit with specified UID not found |


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**EXTENSIONS**

CoolMaster 4000F PAC-YG Support

In CoolMaster 4000F v2.5.6 or higher to control PAC-YG66 digital I/O device following **off** command format is used

**off <UID> [N]**

N is digital output number 1..6

```
>off 012 2
OK
>off 012 6
OK
```

### 4.1.12 on

**SYNOPSIS**

**on <UID>**

**DESCRIPTION**

Turn on indoor unit UID.

**EXAMPLE**

```
>on 102
OK
```

**EXIT CODE**

| | |
|---|---|
| OK | Request Successfully Executed |
| ERROR:1 | Unit with specified UID not found |

**EXTENSIONS**

CoolMaster 4000F PAC-YG Support

In CoolMaster 4000F v2.5.6 or higher to control PAC-YG66 digital I/O device following **on** command format is used

**on <UID> [N]**

N is digital output number 1..6

```
>on 012 2
OK
>on 012 6
OK
```


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### 4.1.13 set

**SYNOPSIS**

**set [<option> <value>]**

**DESCRIPTION**

Query or set CoolMaster configuration. Without parameters set command will list all supported configuration options and their values. To change option use format with option and value. Some options are read only and can not be changed.

| Configuration Option | Access Mode | Description |
|---|---|---|
| S/N | Read | CoolMaster Unit Serial Number |
| myid | R/W | CoolMaster Unit own Centralized Address |
| version | Read | Firmware Version |
| echo | R/W | 0-Disable 1-Enable Commands echo |
| deg C/F | R/W | Temperature scale: C-Celsius, F-Fahrenheit. Set command is `set deg C` or `set deg F` |
| lcd | R/W | LCD size |
| simul | R/W | Number of Indoor units permanently simulated. If simul is not zero CoolMaster will simulate given number of units after reset. |
| CS count | Read | Check Sum errors counter |
| TO count | Read | Timeout errors counter |

**EXAMPLE**

```
S/N      : 0041      Query configuration
myid     : 0A
version  : 2.1.4
echo     : 1
lcd      : 8
simul    : 0
CS count: 0
TO count: 0
OK
>set  echo  0        Set echo option (disable echo)
OK
```

**EXIT CODE**

OK Request Successfully Executed

**COMPATIBILITY**

- deg C/F is supported only in CoolMaster 1000D v 2.5.6

### 4.1.14 simul

**SYNOPSIS**

**simul <N>**

**DESCRIPTION**

Simulate N indoor units. Simulation mode can be used to debug Home Automation Controller software


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without connecting CoolMaster to Air Conditioning system line. To exit simulation mode set N to zero or restart CoolMaster.

**EXAMPLE**

```
>simul 20              Simulate 20 Indoor Units
OK
>simul  0              Terminate simulation mode
OK
```

**EXIT CODE**

| | |
|---|---|
| OK | Request Successfully Executed |

### 4.1.15 stat

**SYNOPSIS**

**stat [UID]**

**DESCRIPTION**

Get Indoor unit(s) status. Specific indoor unit can be addressed by UID. If no UID provided in request, response will contain information about all units

**EXAMPLE**

```
>stat
100 ON  12C 12,41C High Cool OK
101 OFF 32C 04,93C Low  Dry  OK
102 ON  07C 08,27C High Dry  OK
103 OFF 01C 26,84C Med  Dry  OK
104 ON  04C 24,08C High Dry  OK
105 OFF 11C 07,23C Low  Dry  OK
106 ON  11C 14,91C Auto Dry  OK
107 ON  27C 12,94C Med  Cool OK
OK
>stat 101
101 OFF 32C 04,93C Low  Dry  OK
OK
```

**RESPONSE**

| Position in String | Example | Format | Description |
|---|---|---|---|
| 0-2 | 109 | NNN | Indoor unit Centralized Address |
| 4-6 | ON | ON or OFF | On/Off Status |
| 8-10 | 23C | NNC | Set Temperature ºC |
| 12-17 | 24,08C | NN,NNC | Room Temperature ºC |
| 19-22 | Auto | Low,Med,High,Auto,Top | Fan Speed |
| | | Cool,Heat,Fan,Dry,Auto | |
| 24-27 | Cool | Auto,Bps,HExc* | Operation Mode |
| | | AutC,AutH** | |
| 29-32 | OK | OK or Xn, Xnn, nnnn | OK or Failure code |

* - See vam command
** - See auto command


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**EXIT CODE**

| | |
|---|---|
| OK | Request Successfully Executed |
| ERROR:1 | Unit with specified UID not found |

**COMPATIBILITY**

This command is obsolete and is supported only for backward compatibility.

**EXTENSIONS**

CoolMaster 4000F PAC-YG Support

In CoolMaster 4000F v2.5.6 or higher for PAC-YG66 (digital I/O extender) and PAC-YG63 (analog I/O extender), stat,stat2,stat3 commands output format will differ from the mentioned above.

- PAC-YG66. CoolMaster 4000F v2.5.6

```
>stat 012
012 DIG IN:001111 OUT:000001 OK
OK
```

| Position in String | Example | Format | Description |
|---|---|---|---|
| 0-2 | 012 | NNN | PAC-YG66 Centralized Address |
| 4-6 | DIG | DIG | PAC-YG66 Identification |
| 8-16 | IN:001111 | IN:XXXXXX | 6 Digital inputs 1-6 status. X can be 0 or 1 |
| 18-27 | OUT:0000001 | OUT:XXXXXXX | 6 Digital outputs 1-6 status. X can be 0 or 1 |
| 29-30 | OK | OK or nnnn | OK or Failure code |

- PAC-YG63. CoolMaster 4000F v2.5.6

```
>stat 011
011 ANA 007.5 278.8 OK
OK
```

| Position in String | Example | Format | Description |
|---|---|---|---|
| 0-2 | 011 | NNN | PAC-YG63 Centralized Address |
| 4-6 | ANA | ANA | PAC-YG63 Identification |
| 8-12 | 007.5 | NNN.n | Analog input 1 value |
| 13-17 | 278.8 | NNN.n | Analog input 2 value |
| 19-20 | OK | OK or nnnn | OK or Failure code |

### 4.1.16 stat2

**SYNOPSIS**

**stat2 [UID]**

**DESCRIPTION**

Get Indoor unit(s) status. Specific indoor unit can be addressed by UID. If no UID provided in request, response will contain information about all units. stat2 compared to stat1 has additional Filter Reset Sign indication

**EXAMPLE**

```
>stat2
100 ON  12C 12,41C High Cool OK 0
```


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```
101 OFF 32C 04,93C Low  Dry  OK 1
102 ON  07C 08,27C High Dry  OK 0
103 OFF 01C 26,84C Med  Dry  OK 0
104 ON  04C 24,08C High Dry  OK 0
105 OFF 11C 07,23C Low  Dry  OK 0
106 ON  11C 14,91C Auto Dry  OK 0
107 ON  27C 12,94C Med  Cool OK 1
OK
>stat2 101
101 OFF 32C 04,93C Low  Dry  OK 0
OK
```

**RESPONSE**

| Position in String | Example | Format | Description |
|---|---|---|---|
| 0-2 | 109 | NNN | Indoor unit Centralized Address |
| 4-6 | ON | ON or OFF | On/Off Status |
| 8-10 | 23C | NNC | Set Temperature ºC |
| 12-17 | 24,08C | NN,NNC | Room Temperature ºC |
| 20-23 | Auto | Low,Med,High,Auto,Top | Fan Speed |
| | | Cool,Heat,Fan,Dry,Auto | |
| 25-28 | Cool | Auto,Bps,HExc | Operation Mode |
| | | AutC,AutH | |
| 30-32 | OK | OK or Xn, Xnn, nnnn | OK or Failure code |
| 34 | 0 | 0 or 1 | Filter Reset Sign present |

* - See vam command
** - See auto command

**EXIT CODE**

| | |
|---|---|
| OK | Request Successfully Executed |
| ERROR:1 | Unit with specified UID not found |

**COMPATIBILITY**

| | |
|---|---|
| CoolMaster 1000D | v 0.3.1 |
| CoolMaster 2000S | any |
| CoolMaster 3000T | any |
| CoolMaster 4000M | any |
| CoolMaster 7000F | any |
| CoolMaster 8000I(MH) | any |
| CoolMaster 9000H | any |

**SEE ALSO**

CoolMaster 4000M PAC-YG Support

### 4.1.17 stat3

**SYNOPSIS**

**stat3 [UID]**

**DESCRIPTION**

Get Indoor unit(s) status. Specific indoor unit can be addressed by UID. If no UID provided in request, response will contain information about all units. stat3 compared to stat2 has no fractional part in the room temperature presentation.


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**EXAMPLE**

```
>stat3
100 ON  12C 12C High Cool OK 0
101 OFF 32C 04C Low  Dry  OK 1
102 ON  07C 08C High Dry  OK 0
103 OFF 01C 26C Med  Dry  OK 0
104 ON  04C 24C High Dry  OK 0
105 OFF 11C 07C Low  Dry  OK 0
106 ON  11C 14C Auto Dry  OK 0
107 ON  27C 12C Med  Cool OK 1
OK
>stat3 101
101 OFF 32C 04C Low  Dry  OK 0
OK
```

**RESPONSE**

| Position in String | Example | Format | Description |
|---|---|---|---|
| 0-2 | 109 | NNN | Indoor unit Centralized Address |
| 4-6 | ON | ON or OFF | On/Off Status |
| 8-10 | 23C | NNC | Set Temperature ºC |
| 12-14 | 24C | NNC | Room Temperature ºC |
| 16-19 | Auto | Low,Med,High,Auto,Top | Fan Speed |
| | | Cool,Heat,Fan,Dry,Auto | |
| 21-24 | Cool | Auto,Bps,HExc | Operation Mode |
| | | AutC,AutH | |
| 26-27 | OK | OK or Xn, Xnn, nnnn | OK or Failure code |
| 29 | 0 | 0 or 1 | Filter Reset Sign present |

* - See vam command
** - See auto command

**EXIT CODE**

| | |
|---|---|
| OK | Request Successfully Executed |
| ERROR:1 | Unit with specified UID not found |

**COMPATIBILITY**

| | |
|---|---|
| CoolMaster 1000D | v 2.0.9 |
| CoolMaster 2000S | v 2.0.9 |
| CoolMaster 3000T | v 2.0.9 |
| CoolMaster 4000M | v 2.4.5 |
| CoolMaster 7000F | any |
| CoolMaster 8000I(MH) | any |
| CoolMaster 9000H | any |

**SEE ALSO**

CoolMaster 4000M PAC-YG Support

## 4.1.18 swing

**SYNOPSIS**

**swing <UID> <a|h|3|4|6|v>**

**DESCRIPTION**


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Set indoor unit <UID> swing to auto, horizontal, 30º, 45º, 60º or vertical. Not all indoor unit types support swing.

**EXAMPLE**

```
>swing 101 a          Set unit 1-01 swing to auto
OK
>swing 101 h          Set unit 1-01 swing to horizontal
OK
>swing 101 3          Set unit 1-01 swing to 30º
OK
>swing 101 4          Set unit 1-01 swing to 45º
OK
>swing 101 6          Set unit 1-01 swing to 60º
OK
>swing 101 v          Set unit 1-01 swing to vertical
OK
```

**EXIT CODE**

| | |
|---|---|
| OK | Request Successfully Executed |
| ERROR:1 | Unit with specified UID not found |

**COMPATIBILITY**

| | |
|---|---|
| CoolMaster 1000D | v2.5.1 |
| CoolMaster 2000S | v2.3.1 |
| CoolMaster 3000T | v2.3.1 |
| CoolMaster 4000M | v2.3.1 |
| CoolMaster 7000F | N.A. |
| CoolMaster 8000I(MH) | any |
| CoolMaster 9000M | any |

### 4.1.19 temp

**SYNOPSIS**

**temp <UID> [±]<TEMPERATURE>**

**DESCRIPTION**

Set indoor unit temperature. <TEMPERATURE> parameter must be decimal number. Command can work in relative or absolute manner. If plus '+' or minus '-' sign precede <TEMPERATURE> parameter it's value will be used as requested delta. It means the set temperature will be increased (+) or decreased (-) to that delta. Otherwise temperature will be set to the given value.

**EXAMPLE**

```
>temp 101 20          Set unit 1-01 temperature to 20ºC
OK
>temp  101  -1        Decrease unit 1-01 temperature by 1ºC
OK
>temp  101  +3        Increase unit 1-01 temperature by 3ºC
OK
```

**EXIT CODE**

| | |
|---|---|
| OK | Request Successfully Executed |


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ERROR:1 Unit with specified UID not found

### 4.1.20 group

**SYNOPSIS**

**group [<UID_MASTER> <UID>] | delall**

**DESCRIPTION**

Without parameters group command will list current groups. With delall parameter command will delete all groups. In format with two UID's command will group two units. First unit is a master, second unit will follow all settings of the master unit.

**EXAMPLE**

| | |
|---|---|
| **>group 101 102** | Group units 1-01 and 1-02. Unit 1-02 will follow all settings of the 1-01 unit. |
| **OK** | |
| **>group** | List groups |
| **101-->101** | |
| **102-->102** | |
| **OK** | |
| **group delall** | Delete all groups |

**EXIT CODE**

| | |
|---|---|
| OK | Request Successfully Executed |
| ERROR:1 | Unit with specified UID not found |

**COMPATIBILITY**

| | |
|---|---|
| CoolMaster 1000D | v 2.4.4 |
| CoolMaster 2000S | v 2.4.4 |
| CoolMaster 3000D | v 2.4.4 |
| CoolMaster 4000M | v 2.4.4 |
| CoolMaster 7000F | N.A. |
| CoolMaster 8000I(MH) | N.A. |
| CoolMaster 9000H | N.A |

Before v2.5.6 number of groups is limited to 4. Beginning from v2.5.6 number of groups is limited to 20.

### 4.1.21 vam

**SYNOPSIS**

**vam <UID> a|b|x|l|L|h|H**

**DESCRIPTION**

This command controls VMA HRV unit mode and fan speed.

- a - auto mode
- b - bypass (Bps) mode
- x - heat exchange (HExc) mode
- l - low fan
- L - low fan with fresh-up
- h - high fan
- H - high fan with fresh-up


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On/off control for VAM units is performed with regular on off commands.

**EXAMPLE**

```
>vam 101 a          VAM unit 101 auto mode
OK
>vam 101 L          VAM unit 101 low fan speed with fresh-up
OK
>vam 101 h          VAM unit 101 high fan speed
OK
```

**EXIT CODE**

| | |
|---|---|
| OK | Request Successfully Executed |
| ERROR:1 | Unit with specified UID not found |

**COMPATIBILITY**

| | |
|---|---|
| CoolMaster 1000D | v 2.4.7 |
| CoolMaster 2000S | N.A. |
| CoolMaster 3000D | N.A. |
| CoolMaster 4000M | N.A. |
| CoolMaster 7000F | N.A. |
| CoolMaster 8000I(MH) | N.A. |
| CoolMaster 9000H | N.A. |


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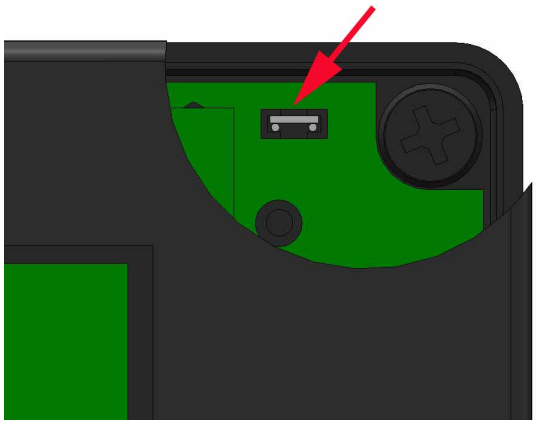
# 5 Firmware Update

## 5.1 Entering bootloader mode

The process of updating CoolMatser's firmware is very simple and straightforward. First of all CoolMaster has be switched into bootloader mode. In order to do so, please connect your PC (Laptop) to the RS232 port of the CoolMaster. Next open the Hyper Terminal program and run boot command. This process is described in "User Manual" document. At this point "BOOT" message should appear on the LCD screen of the CoolMaster. Now it is ready for firmware uploading. Please close Hyper Terminal program and follow to the next step - Firmware Download.

If for some reason CoolMaster is not responding to boot command or preceding firmware update has failed and CoolMaster is not functioning at all, follow the next steps in order to enter bootloader mode.

| | |
|---|---|
| Step1 | Disconnect power supply from the CoolMaster |
| Step2 | Open CoolMaster top cover |
| Step3 | Open BOOT jumper shown on the diagram |
| Step4 | Connect power supply to CoolMaster |



For CoolMaster 7000F firmware update process is described in separate document. For details please contact CoolAutomation support.

## 5.2 Firmware Download

Firmware update is supplied as a set of BAT file(s) and firmware image(s). BAT file can be for example `progp-DAIKIN.bat` and corresponding image file `DAIKIN.INC`. Make sure that BAT file and the image file are located in same directory. In order to start the process, please simply run the BAT file.

After running BAT file, the ComPort selection prompt will appear and the correct port number should be entered in order to proceed.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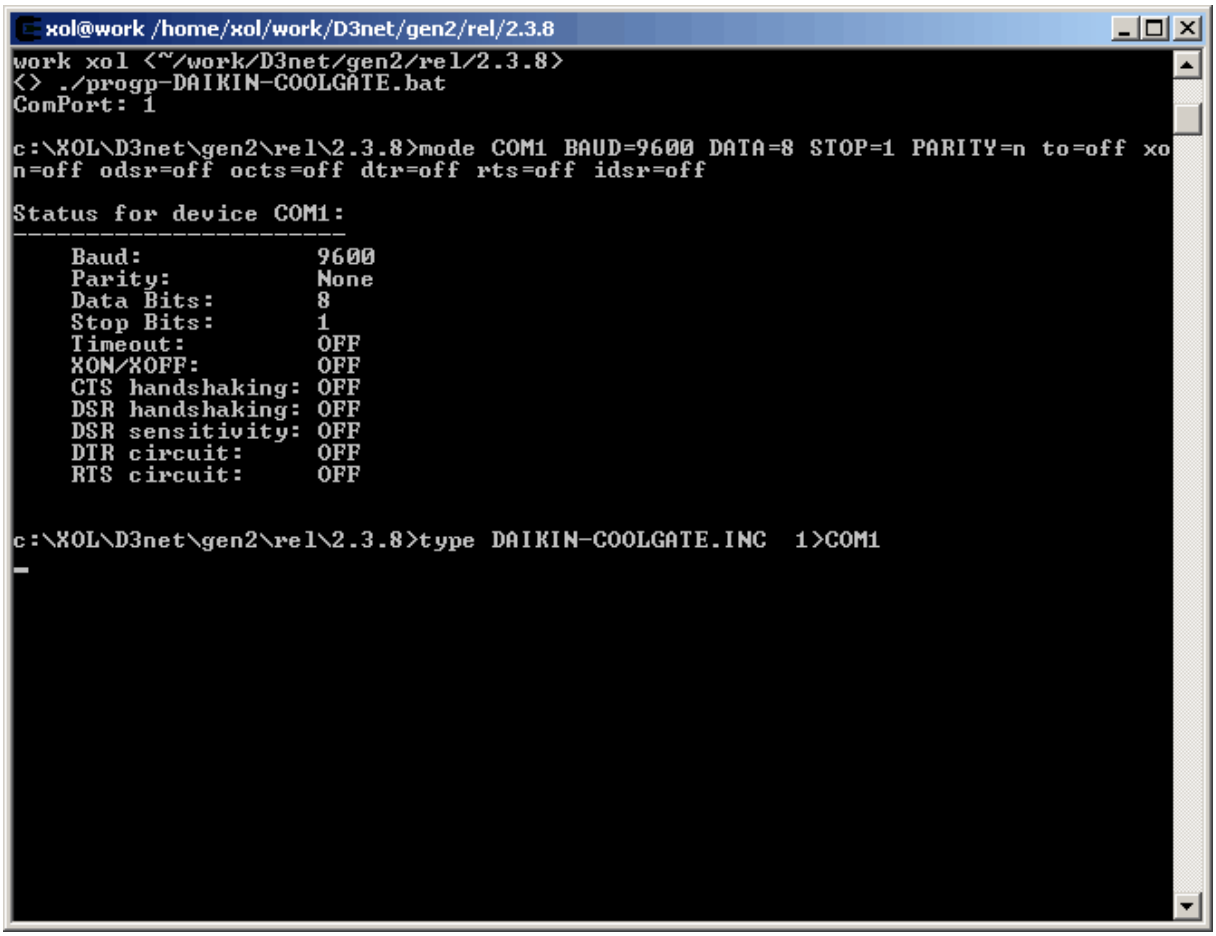


CoolMaster will react with running address counter on its LCD screen. The whole process may take about a few minutes, and it ends with "EOF" and shortly afterwards "READY" messages on the LCD screen.

## 5.3 Reboot

After firmware downloading has being finished you need to power reset CoolMaster. If it was entered bootloader mode with BOOT jumper, please make sure to close BOOT jumper back before power reset.


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